

27



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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/073,817

02/11/2002

Michael Zahm

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6360

7590

06/07/2005

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EXAMINER

KOSTAK, VICTOR R

ART UNIT

PAPER NUMBER

2614

DATE MAILED: 06/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/073,817

Applicant(s)

ZAHM ET AL.

Examiner

Victor R. Kostak

Art Unit

2614

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 31 January 2005.  
2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-21, 23 and 24 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-21, 23 and 24 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 31 January 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_.

Art Unit: 2614

1. Claims 20, 21, 23 and 24 are now objected to because of the following informalities: in the last line of claim 20, “provide” is misspelled. Appropriate correction is required.

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 13-19 and 24 remain rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for the inventions defined by claims 1-12 and 20-24, does not reasonably provide enablement for the multiple filter control involving a field strength detector. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the invention commensurate in scope with these claims.

Applicant’s attempt to justify enablement for these claims by changing their dependencies is ineffective because those dependent claims define embodiments exclusive to those defined in their base claims.

In other words, the inventions described in claims 13-19 and 24 *cannot* further limit the inventions of their base claims because the base claims describe embodiments that are mutually exclusive to the embodiments described in dependent claims 13-19 and 24. Fig. 1 depicts the first embodiment that features a field strength detecting stage, and Figs. 2 and 3 show *alternate* – not further limiting- embodiments that feature plural selection filters but no field strength detector. Page 5 of the specification mentions the field strength detector 9 being replaced by other elements in the systems of Figs. 2 and 3.

Art Unit: 2614

3. Claims 1-21, 23 and 24 are now rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Applicant has amended all three independent claims to describe the IF stage 4 as generating an IF signal (claim 20 reciting “*means for ...*” language). However, the IF signal is generated by tuner 2 as specified on pages 4-5 of the specification. Stage 4 only provides for gain control.

Furthermore, claims 1 and 20, which recite field strength detection, also recite that IF stage 4 bandshifts the filtered signal. Only the embodiment in Fig 1 includes field strength detection, and that embodiment does not involve stage 4 as effecting filter 3. (It is further noted that the term “*bandshifting*” is not found in the original disclosure).

The claims have been interpreted as if stage 4 does not generate but passes an IF signal.

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 5 and 6, as amended, are now rejected under 35 U.S.C. 103(a) as being unpatentable over Poppy (of record) in view of Lai.

Art Unit: 2614

Reviewing Poppy, his receiver (noting Fig. 1) includes a tuner 11 that receives a signal from antenna 10; a selective filter stage 21 connected the tuner by intermediate stages 12 and 13 and electrically associated therewith; an IF stage 12 connected to the filter stage; field strength detection unit 23 that generates a signal proportional to the strength of the received (color component) signal which in turn generates a control signal therefrom (col. 3 lines 29-37; col. 4 lines 4-20); wherein the selection filter provides a transfer function dictated by the control signal (downstream to component stages 22, 27 and 28).

The receiver of Lai (noting Fig. 4) also receives television band signals (col. 1 lines 12-13, 57-58) and also includes signal strength detection (element 43) of an IF band signal which is used to modify the filtering component in tuning stage 22 (in a feedback arrangement controlled by  $\mu$ C 31) by control signal 35.

It would have been obvious to one of ordinary skill in the art to arrange the filtering stage prior to the IF processing stage in the receiver of Poppy, for the specifically disclosed benefit of maximizing the sensitivity of the receiver (e.g. Abstract), taught by Lai, thereby meeting claim 1.

As for claim 5, a black-and-white signal is contained in the received video signal, and when the signal strength is below a threshold, only black-and-white video is presented (the control signal activating color killer 28: col. 4 lines 15-20).

As for claim 6, the high frequency signals suppressed by the filter the are the color components.

5. Claims 1-4, as amended, are now rejected under 35 U.S.C. 103(a) as being unpatentable over Jones (of record) in view of Lai.

Reviewing Jones, his television receiver (noting Fig. 1) includes a tuner 11 connected to a filter stage 20-22 by way of IF amp 12 that receives a video signal from antenna 10; a field strength detector 14 generates a signal proportional to the strength of the received signal and then generates a control signal in response thereto; wherein the filter stage executes a transfer function that is modifiable by the control signal.

As discussed above, the receiver of Lai (noting Fig. 4) also receives television band signals (col. 1 lines 12-13) and also includes signal strength detection (element 43) of an IF band signal which is used to modify the filtering component in tuning stage 22 (in a feedback arrangement controlled by  $\mu$ C 31) by control signal 35.

It would have been obvious to one of ordinary skill in the art to arrange the filtering stage prior to the IF processing stage in the receiver of Jones, for the specifically disclosed benefit of maximizing the sensitivity of the receiver, taught by Lai, thereby meeting claim 1.

As for claim 2, the bandwidth of the filter stage is modifiable by the control signal (noting element 20).

As for claim 3, the filter stage comprises a frequency trap 21, the slope of which modifiable by the control signal (through element 20: col. 4 lines 39-60; Figs. 3 and 4).

Regarding claim 4, both chrominance and luminance signals are contained in the received video signal, and the frequency trap is characterized by the color components being more suppressed in response to a higher field strength, whereas noise is reduced in the composite color and luminance signal when a lower field strength is detected (col. 4 line 61 – col. 5 line 11).

Art Unit: 2614

6. Claims 1, 2, 7-13, 18-21, 23 and 24, as amended, are now rejected under 35 U.S.C. 103(a) as being unpatentable over Nohara (of record) in view of Lai.

Reviewing Nohara, he discloses plural embodiments involving a television receiver (e.g. Fig. 1) that includes a receiving means 2 in which an inherent tuner provides a baseband video signal initially received by antenna 1. A selective filter (stabilizing means) 8 is connected to the tuner and an intermediate frequency stage is connected to the filter stage as part of the receiving means 2 (col. 12 lines 2-5). The IF stage is capable of detecting the field strength of the received video signal and in turn generates a control signal therefrom, wherein the filter stage implements a transfer function modifiable by the control signal (e.g. col. 12 lines 2-39).

As discussed above, the receiver of Lai (noting Fig. 4) also receives television band signals (col. 1 lines 12-13) and also includes signal strength detection (element 43) of an IF band signal which is used to modify the filtering component in tuning stage 22 (in a feedback arrangement controlled by  $\mu$ C 31) by control signal 35.

It would have been obvious to one of ordinary skill in the art to arrange the filtering stage prior to the IF processing stage in the receiver of Jones, for the specifically disclosed benefit of maximizing the sensitivity of the receiver, taught by Lai, thereby meeting claims 1, 11, 20, 22 and 23.

As for claims 2, 12 and 21, the bandwidth of the selection filter is modified by the control signal (i.e., modifies the color and/or luminance bands differently and separately: e.g. col. 12 lines 22-32).

Regarding claim 7, it is inherent that when the field strength is not detected as being inadequate, filtering is accordingly not applied.

Art Unit: 2614

As for claim 8, the filtering must, by default, be processed either incrementally or continuously.

As for claim 9, the IF stage evaluates the field strength and generates the field strength signal (separate means 7 can also be used).

Considering claim 10, as noted above, the IF stage can include the field strength detection stage (noting again col. 12 lines 2-5).

As for claim 13, a second filtering stage (element 4) connected to the IF stage (of receiving means 2) is also incorporated.

As for claim 18, as pointed out above, the filters by default assume either a continuous function or incremental function.

Regarding claim 19, a second stage 10 downstream the IF stage 2 is used to further process the received video signal based on a control signal derived thereby.

As for claim 24, a second stage is controlled (element 4 in Fig. 3 of Nohara), which serves as an synchronization filter in response to the control signal fed back by element 7, and is connected to IF stage 12.

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 14, 15 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nohara et al. in view of Lai and Jones.



Art Unit: 2614

As discussed above, the filter stage of Jones comprises a frequency trap 21, the slope of which modifiable by the control signal (through element 20: col. 4 lines 39-60; Figs. 3 and 4). Both Jones and Nohara focus on maintaining optimum signal presentation even when detected field strength is less than adequate.

Although Nohara does not disclose the typically included frequency trap in the receiver stage, it would have been obvious to one of ordinary skill in the art to modify such a frequency trap in alliance with the operation of Jones to maintain adequate signal response when the field strength is less than acceptable, the overall concern being keeping the ultimately displayed imagery in best presentable form, thereby meeting claim 14.

Similarly regarding claim 15 and 17, it would have been obvious to one of ordinary skill in the art to incorporate the trap of Jones in Nohara upon recognizing that the frequency trap is characterized by the color components being more suppressed in response to a higher field strength, whereas noise is reduced in the composite color and luminance signal when a lower field strength is detected (col. 4 line 61 – col. 5 line 11 of Jones).

8. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nohara et al. in view of Lai and Poppy.

It would also have been obvious to one of ordinary skill in the art to include a color-killer stage in the receiver of Nohara as taught by Poppy so when the signal strength is below a threshold, only black-and-white video is presented (the control signal activating color killer 28: col. 4 lines 15-20 of Poppy), the basis of such consideration by one of ordinary skill in the art

Art Unit: 2614

being to present a viewable signal minus any color noise, thereby at least displaying a noiseless black-and-white signal.

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Victor R. Kostak whose telephone number is (571) 272-7348. The examiner can normally be reached on Monday - Friday from 6:30am-3:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John W. Miller can be reached on (571) 272-7353. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2614

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

**Any response to this final action should be mailed to:**

Box AF  
Commissioner of Patents and Trademarks  
Washington, D.C. 20231

**Or faxed to:**

**(703) 872-9306 (for Technology Center 2600 only)**

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 308-HELP.



Victor R. Kostak  
Primary Examiner  
Art Unit 2614

VRK